

WATER POLLUTION CONTROL DIVISION - INDIANA STATE BOARD OF HEALTH

WASTEWATER TREATMENT PLANT INSPECTION FORM

NPDES Permit # IN0024741

VINCE BAUCCO, FOREMAN

Locality WABASH CCA

Person Interviewed JOHN WONDERLY

Type of Treatment CONV. ACT. SLUDGE

Design Flow (mgd) 2.0 Class STAGE 1/2

Receiving Stream WABASH RIVER

1980 Pop. MEYER PAPER MILL

Permit Conditions, Monthly Values: BOD 1.05 SS 160 pH 6.9 F.Coll. 200 Cl₂ 1.0 Phos-P MAX NH₃-N MAX
 1bs/d S - Satisfactory M - Marginal U - Unsatisfactory

	S	M	U	
Sewer type and maintenance	✓			100% DEDICATED TO CCA EXCEPT FOR CITY
Life stations and alarms	✓			PRIMARY EFFLUENT ADDITION - 0.6 MG/D
Combined sewer overflows				NONE
Bypasses				"
Comminutor				"
Screens		✓		ALL SCREENING & PRIMARY TREATMENT OCCURS AT THE CCA FACTORY SITE AND IS OPERATED BY THEIR PERSONNEL
Grit removal		✓		900 V-NOTCH AFTER CL ₂ CONTACT TANK. SONIC METER CALIBRATED
Flow meter and recorder	✓			APRIL 1986
Meter calibration	✓			DROP-LINE, AIR CONTROL VALVES
Primary clarifier	NONE SEE ABOVE			WILL NOT FUNCTION; 10 OF THE 20
Aeration tank/ditch				NON-FUNCTIONAL
Trickling filter		✓		TELESCOPING VALVES ARE RUSTED -
RBC		✓		OFF ON BOTH CONV. RECTANGULAR
Secondary clarifier		✓		CLARIFIERS
AST/AWT facilities				DUE TO HIGH SOLIDS IN EFFLUENT
Chlorination equipment		✓		DEMAND FOR CL ₂ TOO HIGH
Chlorine contact tank		✓		TSS. (20 - 1168) T-BODS (13 - 210)
FINAL EFFLUENT		✓		DROP-LINE CONTROL VALVES ARE
Aerobic digester		✓		ALL NON-FUNCTIONAL
Anaerobic digester		✓		BELT-PRESS & SLUDGE THICKENER
Sludge handling		✓		LAND APPLICATION PERMIT PENDING
Sludge disposal	✓			COMMON DAILY PEAKS OF 2.9 MG/D
Hydraulic loading		✓		(506 mg/l - 1094) MONTH OF NOVEMBER
Organic loading		✓		93% REMOVAL " " "
BOD removal (SECONDARY)	✓			64% REMOVAL " " "
SS removal (PLANT ONLY)	✓			NOT REQUIRED
Phosphorus removal				
Industrial waste				N/A
NUTRIENT ADDITION		✓		METERING PUMPS NON-FUNCTIONAL
Laboratory methods				NOT REVIEWED
Quality control				" "
Calibration of equipment				" "
MRO and records	✓			MRO'S, DMR'S, MAINTENANCE LOG
Sample type and frequency	✓			24-HR COMPOSITE, 7 TIMES/WK
Maintenance program		✓		PREV. MAINTENANCE PROGRAM - SCHEDULE
Housekeeping		✓		AS WELL AS CAN BE EXPECTED WITH
				TIRE FOAMING & HIGH LEVELS EXPERIENCED IN THE PLANT.
N.P.D.E.S. Compliance				NO VIOLATION OF TSS, T-BODS, & FEC. COL FOR
Notice of Violation				YES, LAST JANUARY 1986
Order of Compliance				NONE
Consent Decree				"
Cross connections				BREAK WATER TANK
Properly certified operator				YES
Weather conditions				CLOUDY 30'S
Letter needed				RECOMMEND COMPLAINT BE ISSUED

Inspected by - W. MCECHANEY Date - 1-7-87

SBH65-128 SF28665 10/84

Cert. Op. Name, JOHN WONDERLY
 Class & No. III #7844

US EPA RECORD CENTER REGION 5



590343

1)

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MUNICIPALITY WABASH - CCA

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COMMENTS and/or RECOMMENDATIONS:

1) PAPER PRODUCTS ARE RECEIVED AT THE SECONDARY PLANT FROM CCA CAUSING PLUGS IN SLUDGE DRAW-OFF (RETURNS) LINES AND HIGH MAINTENANCE REQUIREMENTS TO DIFFUSORS.

2) (3) OUT OF (4) OF THE CHECK VALVES LOCATED ON THE LARGEST BLOWERS WILL NOT FUNCTION. BLOW BACK THROUGH NON-OPERATIONAL BLOWERS CAUSES A LOSS OF EFFICIENCY AND BLOW-OFF TO THE ATMOSPHERE. A SPARE MOTOR HAS BEEN USED TO MAKE A BLOWER OPERATIONAL NO REPLACEMENT HAS BEEN PURCHASED. AN ADDITIONAL SMALLER (INTERMEDIATE) BLOWER WAS INSTALLED IN YEARS PAST TO MEET THE DEMAND OF ORGANIC OVERLOADING. OPERATOR MUST RUN 2-LARGE; 1-INTERMEDIATE TO MEET AIR DEMANDS.

3) OPERATORS HAVE CONTROLLED RETURN ACT. SLUDGE ^{RETURN} USING THE ISOLATION VALVES ON THE CLARIFIERS. HOWEVER, VALVES MUST BE

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COMMENTS and/or RECOMMENDATIONS:

3) ADJUSTED NEARLY OPEN TO REDUCE PLUGGING. THIS CAUSES HIGH FLOWS THEREFORE A HIGH HEAD IN THE MUD WELL. DIRECTLY CONNECTED TO THE MUD WELL IS THE RETURN LINE FROM AN ADDED-ON CLARIVAC. WITH A HIGH HEAD IN THE MUD WELL AN INCREASE HEAD OCCURS IN THE RETURN CHANNEL OF THE ~~RETURN~~ ^{CLARIVAC} CAUSING FLOATATION OF THE COLLECTOR UNIT AND LOSS OF SIPHON. OPERATORS HAVE ADDED WEIGHTS TO COMPENSATE, ^{BUT} RETURN SLUDGE EFFICIENCY IS GREATLY AFFECTED. ALL THREE SLUDGE RETURN PUMPS ARE USED TO KEEP UP WITH THE HIGH FLOW FROM THE CLARIFIERS (ORIGINAL DESIGN 2 PUMPS WITH (1) BACK-UP).

4) VIOLATION OF FECAL COLIFORM LIMITATIONS OCCUR ON AN AVERAGE 6-7 TIMES/MONTHLY. ONLY REDUCTION IN BOD₅ - TSS LOADINGS IN THE EFFLUENT WILL ALLOW PROPER REDUCTION OF PATHOGENIC ORGANISMS. CHLORINATOR ARE SET AT MAXIMUM OUTPUT.

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3)

NPDES PERMIT # IN CO 24741

MUNICIPALITY WABASH - CCA

Person Interviewed JOHN WONDERLY

COMMENTS and/or RECOMMENDATIONS:

5) FOAM AND HEAVY SOLIDS BEING DISCHARGED AT TIME OF INSPECTION. FREQUENT VIOLATION OF T-BOD₅ & TSS, & FECAL COLIFORM.

6) THE HEAVY SOLIDS LOADING OF THE PLANT CAUSES HIGH RATES OF SOLIDS HANDLING THROUGH THE BELT PRESS. THE SLUDGE CAKE PUMP IS INADEQUATE TO HANDLE THE CAKE OFF OF THE PRESS. PERSONNEL ADD WATER TO THE CAKE SO THAT THE PUMP WILL HANDLE THE SLUDGE & PUMP TO ^{THE} SPREADER TRUCK. THE EFFICIENCY OF THE PRESS IS GREATLY REDUCED AND AN INCREASE IN SOLIDS HANDLING OCCURS. DURING HEAVY SOLIDS LOADING OF THE TREATMENT PLANT THE OPERATOR IS UNABLE TO WASTE EFFECTIVELY (THEREFORE HAVE OPTIMUM TREATMENT) BECAUSE OF A LOSS OF BELT PRESS EFFICIENCY.

7) PEAK MAXIMUM FLOW (RATE) HAVE REACHED 3.2 MGD. THIS WOULD NOT BE OF A GREAT CONSEQUENCE TO TREATMENT IF OVERLOADING

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COMMENTS and/or RECOMMENDATIONS:

OK THE TREATMENT PLANT WAS NOT SO GREAT. WITH PEAK FLOWS ~~SO~~ SLUDGE CARRY-OVER IN THE SECONDARY CLAMFIERS IS EVIDENT.

8) MASS LOADINGS ^(T-BODS) EXCEED CONTRACT LIMITATIONS 27 OUT OF 30 DAYS - MONTH OF NOVEMBER.

9) PRIMARY REMOVAL AT CCA FACTORY WAS A NEGATIVE ^(MONTH OF NOVEMBER) RATE FOR T-BODS & TSS, WHICH GREATLY OVERLOADS THE SEC. SYSTEM

10) AMMONIA - PHOSPHORUS ADDITION IS ACCOMPLISHED BY DRIPPING THE SOLUTIONS FROM A PUC STORAGE TANK. METERING PUMPS & LINES NEED REPLACED. POLYMER FEED & PUMPS NEED REPLACED AND/OR REBUILT.

11) A CONTRACT FOR O&M OF THIS TREATMENT PLANT BY WABASH (CITY OF) ^(WITH CCA) EXIST, HOWEVER, THE CONTRACT DOES NOT ADDRESS MAJOR ITEMS OF REPLACEMENT OR REPAIR (SEE ITEMS ABOVE). THEREFORE THE ABOVE ^(ITEMS) HAVE NOT BEEN CORRECTED WITH NO INDICATION THAT FUNDS WILL

Inspector: W. McELANEY

BE MADE AVAILABLE FOR THEIR CORRECTION.

MAINTENANCE (WILL NOT REPLACE NEEDED EQUIPMENT ON MAJOR TREATMENT UNITS) AND ~~SO~~ SEVERE ORGANIC OVERLOADING OF THE PLANT BY CONTAINER CORP. OF AMERICA (CCA). THE CITY HAS CONTRACTED O&M OF THE PLANT WITH CCA. (WHICH ARE THE OWNERS) AND HAS INCORPORATED THE DISCHARGE OF THE PLANT UNDER THE CITY ^{SIGNED} NPDES PERMIT. THE CITY OPERATOR HAS SENT NUMEROUS LETTERS ADDRESSING THE PROBLEMS TO CCA. RESULTS WERE FORTHCOMING WHEN MOBILE CORP. OWNED THIS FACILITY. HOWEVER, A LEVERAGE BUY-OUT BY SMARTETTE CORP. HAS OCCURRED AND NO COMMITMENTS CAN BE OBTAINED. I RECOMMEND ENFORCEMENT ^(FOR O&M CORRECTIONS) ACTION BE INITIATED ASAP. ^(I HAVE LISTED ITEMS TO BE ADDRESSED ON ATTACHMENTS.) RE. COMPLAINT ORDER.

SIGNED

WMM

DATE

1/8/87

NO. 45 475
POLY (SHEETS) 49475

SEND PARTS 1 AND 3 INTACT - PART 3 WILL BE RETURNED WITH REPLY.

carbonless

DETACH AND FILE FOR FOLLOW-UP

Attachment II

Descriptive of Existing Discharge

General

The City of Wabash operates two separate parallel treatment systems at the same site. One is a Class III, 2.75 MGD, municipal wastewater treatment plant having grit and comminution facilities followed by an activated sludge/biological treatment system prior to effluent chlorination.

The City also operates and maintains the municipal/industrial wastewater treatment plant owned by Container Corporation of America (CCA). The plant is located on City property while CCA provides the necessary operating capital. CCA recycles waste paper into cardboard with its wastewater being pretreated by primary settling prior to its wastewater acting as the influent to the municipal/industrial plant.

The municipal/industrial wastewater treatment plant is classified as a Class III, 2.0 MGD, activated sludge/biological treatment system with effluent chlorination. The treatment plant receives up to 1.0 MGD of primary effluent from the municipal plant to provide nutrient supplement for enhanced biological growth.

The two (2) plants have a common outfall No. 004 to the receiving stream. The total loading of pollutants being discharged would be the sum of outfall No. 004A (municipal plant) and No. 004B (municipal/industrial plant). The receiving stream for the treatment plants is the Wabash River. According to 1983 U.S.G.S. data, the estimated 7-day, 10-year low flow of the Wabash River is 29.0 cfs or 18.7 MGD. The indicated downstream uses are for partial body contact recreation and aquatic life.

Waste sludge from each plant is pumped to separate digestion facilities with ultimate or final disposal of the sludge destined for land application purposes.

As of October 1984, the City's pretreatment program is ready for public notice and has already been approved by EPA.

The City also has a smaller outlying wastewater treatment plant known as the Union Mills plant which is covered by a separate NPDES Permit No. IN 0035653. The plant utilizes the extended aeration process and has a design flow of 9,000 gpd into Treaty Creek.

The following data is descriptive of each outfall (004A and 004B) for the period of January 1983 through June 1984.

Outfall 004A (Municipal Plant)

<u>Effluent Parameter</u>	<u>Monthly Average</u>	<u>Weekly Maximum</u>
Flow (MGD)	(2.08)	(3.83)
BOD ₅	14.3	33
BOD ₅ % Removal	(89)	(92)
Total Suspended Solids	9	27
TSS % Removal	(91)	(96)
Fecal Coliform	(51/100 ml)	(159/100 ml)
T. Residual Chlorine	0.3 min.	(1.0 max.)
pH units	(6 min.)	(7.9 max.)

Outfall 004B (Municipal/Industrial Plant)

<u>Effluent Parameter</u>	<u>Monthly Average lb/day</u>	<u>Weekly Maximum lb/day</u>
Flow (MGD)	(1.13)	(3.81)
BOD ₅	274	1,167
BOD ₅ % Removal	(97)	(99)
T. Suspended Solids	528	3,279
TSS % Removal	(98)	(100)
Fecal Coliform	(6,944/100 ml)	(122,000/100 ml)
T. Residual Chlorine	(0 min.)	(1.0 max.)
pH units	(5.7 min.)	(7.7 max.)

Attachment III

Effluent Limitations and Monitoring Requirements

General (Receptacle 1 East)

Effluent Parameter	Discharge Limitations		Monitoring Requirements	
	Monthly Average	Weekly Maximum	Frequency	Type
Flow	--	--	5 X Weekly	Continuous
C. BOD ₅ *	--	--	Weekly	24-Hr. Comp.
T. BOD ₅	30 mg/l**	45 mg/l	5 X Weekly	24-Hr. Comp.
T. Suspended Solids	30 mg/l**	45 mg/l	5 X Weekly	24-Hr. Comp.
Fecal Coliform***	200/100 ml	400/100 ml	5 X Weekly	Grab
pH units	(limited between the range of 6 and 9)			

*This analysis shall be from a split sample taken the same day as one of the T. BOD₅ samples. The analysis of both C. BOD₅ and T. BOD₅ is being required for comparative purposes. The need to do C. BOD₅ analysis shall cease one-year after the effective date of the permit.

**Or 85% removal, whichever is more stringent.

***The effluent shall be disinfected on a continuous basis from April 1 to October 31. If disinfection by chlorine is used, a chlorine residual shall be maintained at a concentration not to exceed a maximum of 1.0 mg/l. In addition the Permittee is required to undertake a program of chlorine minimization by reducing the amount of chlorine used to the greatest extent possible, while still complying with the Fecal Coliform limitations. Effluent chlorination is not required and should not be practiced from November 1 through March 31.

These limits are based on Wastewater Treatment Guidelines for municipal wastewater treatment plants with secondary treatment that discharge to streams with flows that provide greater than 3:1 dilution. The limits are also based on 40 CFR Part 133, Secondary Treatment Regulations which specifically include CBOD₅. Normally, an analysis would be required for CBOD₅ five times per week in addition to a once-per-week analysis for TBOD₅ (for one year) for comparative purposes. However, due to the TBOD₅ mass-based limitations on outfall 004B (Municipal/Industrial Plant), TBOD₅ will be continued five times weekly in place of CBOD₅ while CBOD₅ is to be analyzed only once-per-week at both outfalls. This rationale should provide some uniformity in the analysis required at outfalls 004A and 004B.

The fecal coliform and pH limitations are based on ISPCB regulation 330 IAC 1-1 for the Wabash River being designated as the receiving stream for the discharges from outfalls 004A and 004B.

Monitoring requirements are from Technical Release 71-8-11.

Outfall 004A (Pulp and Paper Manufacturing)

Effluent Parameter	Monthly Average	Weekly Maximum	Frequency	Type
Flow	--	--	5 X Weekly	Continuous
C. BOD ₅ *	--	--	Weekly	24-Hr. Comp.
T. BOD ₅	1,025 lbs/day	1,538 lbs/day	5 X Weekly	24-Hr. Comp.
T. Suspended Solids	1,667 lbs/day	3,250 lbs/day	5 X Weekly	24-Hr. Comp.
Fecal Coliform**	200/100 ml	400/100 ml	5 X Weekly	Grab
pH units	(limited between the range of 6 and 9)			

*See similar note on Page 8 concerning CBOD₅ for outfall 004A.

**See Fecal Coliform and Total Residual Chlorine note on outfall 004A, page 8.

The limitations on this outfall for TBOD₅ and T. Suspended Solids have been retained from the expiring permit and are based upon an agreement reached by the Indiana Stream Pollution Control Board, the U.S. EPA, Container Corporation of America, and the City of Wabash as referenced in the permit modification of September 15, 1976. These limitations are more stringent than what the limitations would be if BPT for the Pulp and Paper Point Source Categories Effluent Limitations Guidelines (40 CFR Part 430.50 - 430.54; promulgated November 18, 1982) for CCA (based on 311 tons/day of paperboard produced from recycling waste paper) and secondary limitations for the municipal portion of this waste stream were added together.

Limitations for fecal coliform, pH, and CBOD₅ are based on the same requirements as those mentioned for these same parameters for outfall 004A.

Bypass/Overflow authorization is given when systems (treatment plant or combined sewers) are hydraulically overloaded or upon failure of wastewater treatment plant systems.

Expiration Date

A five-year permit is proposed.

Note: CCA does not use chlorinated phenolic biocides in its paperboard manufacturing processes. Thus, this permit does not limit trichlorophenol or pentachlorophenol, pursuant to 40 CFR 430.54.

Drafted by Robert Kelsey
November 1984

WPC 29L/e
3/7/84

Post Public Notice Addendum - 2/26/85

The following changes were made to the discharge limits for the combined Municipal/Industrial plant (outfall 004B) as a Class III Municipal based mainly on the fact that the City is the operator and the operator is required under State and Federal Regulations to obtain a permit. However, due to that fact that the plant is dedicated to the treatment of CCA wastewater and discharge limitations are reflective of Industry standards and not Municipality standards, an Industrial classification is now being made. Therefore, on pages 2 and 5 of the permit for outfall 004B, the plant classification (previously Class III Municipal and now a Class C Industrial) and the discharge limitations (from monthly to daily average and from weekly to daily maximum) have been changed to reflect the new Industrial classification.

As a result of some of the aforementioned changes, the Fecal Coliform notation on Page 7 has been deleted and added on Page 2 and Page 5 (to be "calculated as a geometric mean,") in the permit.

A paragraph on the bottom of Page 4 in the Permit was added in response to comments received by U.S. EPA (Region V). The Pretreatment Program for the City of Wabash has not been approved yet. Pretreatment requirements shall become effective when the U.S. EPA and the State of Indiana approve the permittee's program.

Outfall numbers 004A and 004B have been changed to 104 and 204, respectively, due to tracking difficulties. Both outfalls discharge thru 004. Drafted by R. A. Kelsey

WPC 29L/e
3/7/85

WABASH COUNTY

Container Corp.
455 Factory St.
Wabash, IN 46962

Wabash County Board of Health:

Brian Wallik (5/14/87)-
(219)-563-0661 Ext. 51

Container has a lot of dark smoke coming from their stacks.
Wallik has reported this to DEM (air management).

Container also has a lagoon that they use for paper waste
(produces phenolic resins). Container claims this is not a
problem, but Wallik is uncertain whether or not it is.

*See File 201 for paper mill sludge (from
lagoons) analysis.*